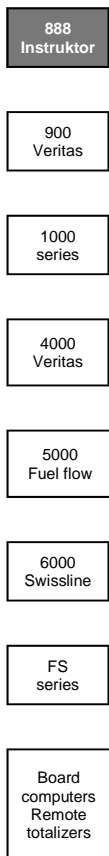


FUEL FLOW METER AIC - 888 INSTRUKTOR

**Diesel consumption flow meter
for live testing while driving for
engines up to 515 KW (700 HP)**



The AIC-888 Instruktor flow meter is the instrument for live testing on board vehicle. Made for pulsating liquids, the true consumption of the vehicle engine is measured by switching the return flow from the tank, directly to the fuel supply line.

Application

- Medium and large trucks, buses, building machines, tractors, etc.

Media that can be measured

- Diesel
- Bio-fuel
- Liquid gas

Features and benefits

- **Up to 15 % of fuel economy**, through a constant control of the driver
- Reliable instantaneous consumption display and flow totalisation
- **Average fuel consumption visualisation with 3 digits after coma**
- Instrument protected via in-line fuel filter
- Mechanical meter of proven technology since more than 20 years
- No interferences with vehicle existing on-board electronic (CAN-Bus)
- AIC flow meters works on all fuel injection type (except systems with open injectors)
- Suitable for engines with fuel injection of latest technology

CE certified
EME Test according
to 95/54/CE directives

Measuring Systems

A complete measuring systems consist of :

- flow meter AIC 888 Instruktor
- Mounting bracket (optional)
- board computer BC 2022
- cables for electrical connection
- couplings for installation



Measuring principle

Each unit is produced as one module in the interests of simple installation. All holders and housing parts are made of stainless steel or anodized aluminium.

Fuel flow measurement:

The consumption of fuel for engines can be measured by 2 ways :

- Direct (means that there is no fuel returning to the tank, the return flow is reinjected in the fuel circulation flow of the injection circuit.
- Differential (means that the supply and return flow are subtracted. The return fuel flow goes back in the tank.

AIC SYSTEMS Ltd. has strongly developed the best measuring solution : the **DIRECT flow** measurement. This solution allows a true measurement of the fuel flow, within a uncertainty better than +/- 1 % (+/- 0.2 % repeatability). The differential fuel flow allows only an accuracy of best 5 % or worse.

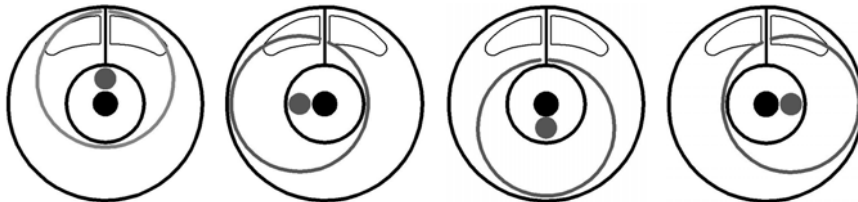
High pulse rate output:

The control and pulse technology is based on the latest SMD technology and is moulded to be water tight and vibration resistant (Pat. AIC). This allows high pulse count per flow quantity unit. The AIC-888 INSTRUKTOR is supplied with 800 ppl (pulses per one litre).

Rotary piston technology:

After decades of experience, AIC SYSTEMS Ltd. make his choice for the most reliable volumetric flow meter technology existing, with the less weir and moving parts.

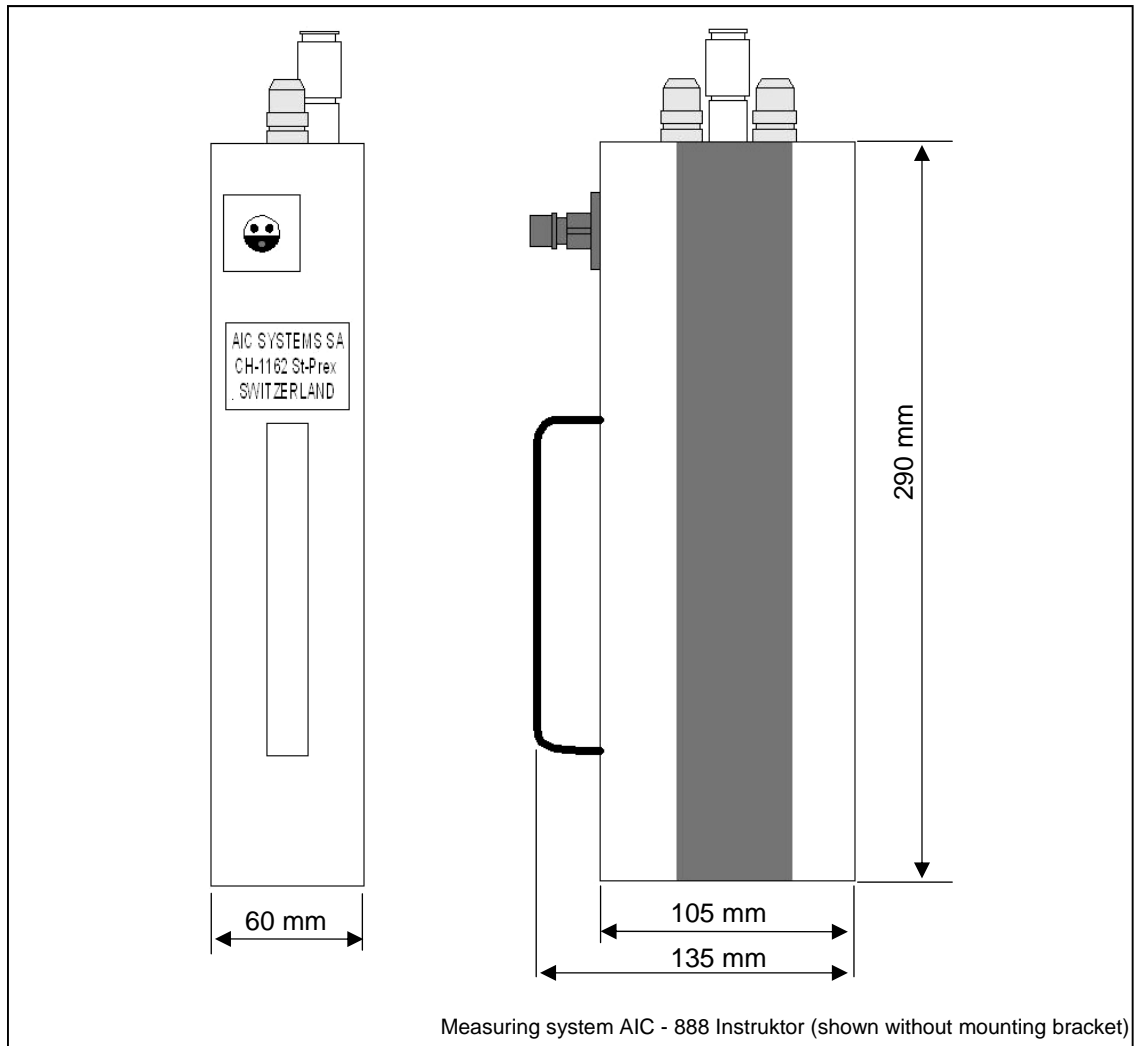
The rotary piston technology fits the fuel consumption measuring principle perfectly, a single moving piston oscillates softly in a measuring chamber protected by a thin layer of fuel maintaining the piston self floating. This allows the meter to have the less possible mechanical friction. Under normal working conditions the pressure loss ahead of the meter is of max.



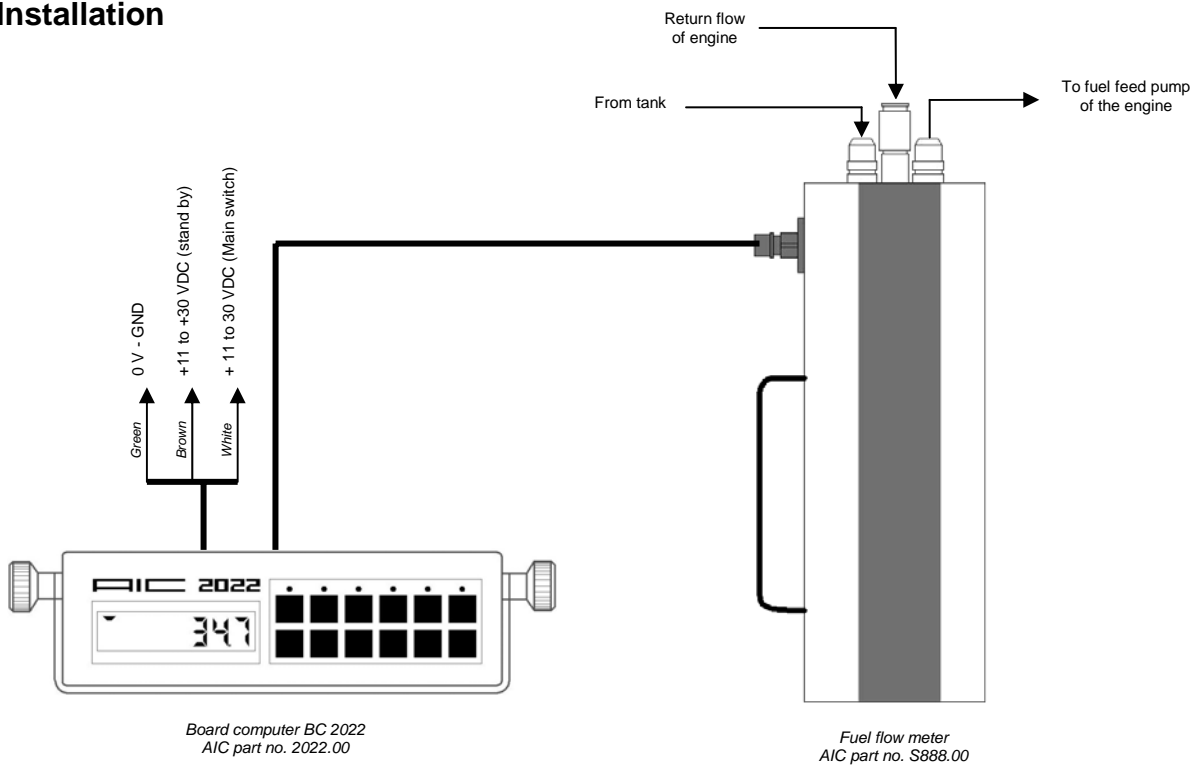
Calibration

Each flow meter unit, is subject to careful calibration at the factory. Customer calibration can also be saved on simple demand.

Dimensions



Installation



Technical data

AIC 888 Instruktor

General data

Manufacturer	AIC SYSTEMS Ltd.
Product designation	AIC-888 Instruktor

Mechanical data

Dimensions (L x l x h)	290 x 135 x 60 mm 300 x 150 x 70 mm (incl. mounting bracket)
Weight	3.6 kg 0.2 kg (mounting bracket)

Materials

Flow meter sensor	Brass, aluminium
O-ring	Viton®
Connectors	Steel anodized, Stainless Steel, Brass
Casing and mounting bracket	Stainless steel and aluminium
Tubing (internal)	NBR

Flow meter

Measurement principle	Volumetric, oscillating piston, with microprocessor controlled pulse emitter (Pat. AIC)
Measuring range	4 to 200 l/h
Accuracy	better than 1 % of reading
Repeatability	better than 0.2 % of reading
Admissible pressure	- 1 to 5 bar
Mounting position	indifferent
Operating temperature	-30 ... 90°C
Ingress protection	Sensor and electronic, IP 68

Electrical connection

Power supply	8 - 15 VDC / 30 mA (through BC 2022)
Pulse signal	rectangular NPN, open collector, pulse width 0.6 ms
Pulse rate	800 ppl

Ordering Structure

Model Type	Designation	Order code
<u>Flow meter</u> AIC-888 Instruktor	for engines up to max. 515 KW (700 HP) 800 ppl, pulse rectangular, 50% duty cycle	S888.00
<u>Accessories</u> Mounting bracket	For permanent or temporarily mount on vehicle frame, aluminium	888 100
Connection kit	Universal connection kit CS-1, includes various connection fitting (metric), fuel hose not included	S1450.1
Fuel hose	Fuel hose unipress 9.5 x 18 mm, NBR reinforced (not for Bio-diesel purposes)	S1440.0
Connection cable	Cable connecting the fuel oil meter to the BC 2022 15 m instead of 10 m 18 m instead of 10 m 24 m instead of 10 m	5615.01 5618.01 5624.01
Transport case	Transport and protection of measuring instrument and accessories, dim. 460 x 330 x 160 mm, ABS	460 145

Board Computers

Model Type	Designation	Order code
BC-2022	on-board computer, incl. 11 functions with feed cable and programming plug. Operating voltage : 11 to 30 VDC Functions available : consumption-instantaneous, -average with 3 decimals, -cumulated, travel speed, distance travelled, average speed, cumulated fuel consumption during stationary service, driving time, operating time, speed warning Choice of standards : metric, US, British	2022.00

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